

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

ORDER No. 92-125
WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF SAN JOSE
SANTA CLARA TRANSFER SERVICE INC.
CALIFORNIA DEPARTMENT OF TRANSPORTATION
RICHARD PETERS
SAHARA LUGGAGE INC.
DANNA PROPERTIES
RUSSELL E. JOHNSON, TRUSTEE

INACTIVE STORY ROAD LANDFILL
SAN JOSE, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. Site Description The Story Road Landfill is located in San Jose near the intersection of Coyote Creek and Interstate 280 (Figure 1). The approximately 60 acre Story Road Landfill was originally the home of the Remillard-Dandini Brick Company. From 1879 to 1957 the Brick Company produced approximately 10 million bricks a year from clay mined from the east bank of Coyote Creek. The clay pit was subsequently used for refuse disposal beginning in 1957. In 1961 the San Jose City Council issued an ordinance condemning the property and established a municipal landfill. The City of San Jose operated the Story Road Landfill as a municipal landfill from 1961 to 1969. The unlined pits in which the refuse was placed were eventually filled to a height of 25 to 30 feet above the original ground surface. Approximately 500,000 cubic yards of refuse were discharged to the Story Road Landfill. No records of the type, distribution and quantity of waste discharged at the Story Road Landfill exist.

Between 1970 and 1975 CC&F San Jose Properties, Inc. (now known as CC&F Investment Company) purchased a portion of the former landfill from the City of San Jose. CC&F Investment Company eventually developed the area adjacent to Remillard Court into a business park and sold individual parcels. CC&F Investment Company no longer is a property owner at the business park.

The Story Road Landfill is located within 200 feet of a residential neighborhood and a children's playground. The City plans to eventually incorporate the Story Road Landfill property into its City Park System.

2. Naming of Dischargers The City of San Jose is hereafter named a discharger because it is a landowner and former operator of the Story Road Landfill. Since 1969, several parcels that overlie the Story Road Landfill have been subdivided.

The current owners of these parcels, as identified below in Table 1, are hereby named as dischargers pursuant to Section 2601 of Chapter 15, Division 3, Title 23 of the California Code of Regulations and California Water Code Section 13263. It is noted that the following list is not a complete list of all properties that overlie waste. The Board intends to amend this Order in the future to name all property owners that own properties that overlie waste as dischargers.

Table 1

Discharger	Property Description	Assessors Parcel Number
California Department of Transportation	Interstate 280	NA
Mr. Richard Peters 960 Remillard Court San Jose, CA 95122	960 Remillard Court	472-11-034
Sahara Luggage Inc. 960 Remillard Court San Jose, CA 95122	960 Remillard Court	472-11-036
Danna Properties c/o D.F. Danna P.O. Box 5428 San Jose, CA 95105	Remillard Court	472-11-044
Russell E. Johnson, Trustee 2630 Huntington Dr. Aptos, CA 95003	Remillard Court	472-11-052 472-11-053

NA - Not Applicable, No Assessors Parcel Number for Interstate-280.

In addition to the landowners listed above, Santa Clara Transfer Service, Inc. (SCT) is hereafter named a discharger because it owned underground fuel storage tanks that are believed to have leaked and contributed to the groundwater pollution beneath the Story Road Landfill.

The City of San Jose and SCT are primarily responsible for this discharge for purposes of this Order. The landowners shown on Table 1 above are secondarily responsible for the discharge for purposes of this Order (See Provision C.3).

SCT shall only be responsible for investigation and remediation of any pollution that originated on its property. The City of San Jose shall be primarily responsible for complying with all Provisions and Tasks of this Order unless specified otherwise.

- Previous Investigations The City of San Jose submitted a Solid Waste Assessment Test Report dated September 1987. This report concluded that shallow groundwater beneath the site was polluted with volatile organic compounds (e.g., trichloroethene and vinyl chloride), fuel constituents (e.g., benzene, toluene, and xylene) and metals (e.g., arsenic and cadmium).

Since 1987 the City of San Jose has completed two additional phases of investigation in an attempt to define the extent of the groundwater pollution. Based on the September 1991 sampling round, TCE has been detected as high as 139 ppb, vinyl chloride as high as 200 ppb, high boiling point hydrocarbons as high as 9100 ppb, and benzene as high as 210 ppb.

SCT is a tenant of a property that overlies a portion of the Story Road landfill. SCT installed four underground storage tanks into refuse underlying their property. These tanks, which were removed in 1989, may have contributed to the groundwater pollution beneath the Story Road Landfill. SCT released information regarding these tanks to the City of San Jose, the Santa Clara Valley Water District (SCVWD), and the Regional Board in September 1992. Task 1 of this order requires SCT to submit a workplan to determine the lateral and vertical extent of pollution associated with the former underground tanks.

4. Municipal Well Field The San Jose Water Company's 12th Street Well Field is located directly across Coyote Creek (and downgradient) from the Story Road Landfill. To date, the 12th Street Well Field has not been impacted by the pollution at the Story Road Landfill. However, the Board is concerned that if the shallow groundwater pollution at the Story Road Landfill is not contained and cleaned up, it could pollute the deeper municipal supply zones at the neighboring 12th Street Well Field.

The 12th Street Well Field consists of nine municipal wells that pump a total of approximately 2 million gallons per day of groundwater. Groundwater from this well field is not treated. However, the San Jose Water Company does sample one well for volatile organic compounds each quarter on a rotating basis. This quarterly monitoring exceeds the Department of Health Service's requirements. To date none of the pollutants detected at the Story Road Landfill have been detected in the groundwater from the well field.

The 12th Street Well Field pumps groundwater from zones deeper than 250 feet below ground surface. Groundwater pollution at the Story Road Landfill has not been detected below about 50 feet below ground surface. In addition, there is a clay aquitard approximately 50 feet thick that separates the Story Road Landfill groundwater from the 12th Street Well Field production zone that should act to retard the downward migration of the groundwater pollution. However, the groundwater gradient between the shallow polluted groundwater and the deeper municipal supply zone is downward.

The regional aquitard described above is not perfect; it may contain natural gaps and cracks that could allow downward pollutant migration. In addition, historical agricultural wells that were either improperly installed or improperly sealed could act as a vertical conduit through the regional aquitard.

5. Hydrogeology Shallow alluvial sediments (less than 60 feet below ground surface) have been divided into three units. These are: (1) the upper water-bearing zone, (2) the underlying aquitard, and (3) the lower water-bearing zone. The upper water-bearing zone has its upper boundary at about 10 to 20 feet below ground surface. The lower water-bearing zone has its upper boundary at about 40 feet below ground surface. There is a slight downward gradient between the upper and lower water-bearing zones. Based on slug tests, the hydraulic conductivities of the upper zone vary from 4.6×10^{-3} cm/sec to 2.2×10^{-3} cm/sec. The hydraulic conductivities for the lower water-bearing zone vary from 1.3×10^{-4} cm/sec to 9.3×10^{-3} cm/sec.

The sediments between the base of the lower water-bearing zone (60 feet below ground surface) and the uppermost perforated zone at the 12th street well field (250 feet below ground surface), consist of gravel, clay, and sand (based on well field driller's logs). In addition, these logs show a significant clay aquitard located between approximately 200 and 250 feet below ground surface.

6. Surface Water Coyote Creek forms the western and southern boundary of the Story Road Landfill (Figure 2). In total, approximately 4000 feet of the eastern creek bank borders the Story Road Landfill. Limited data indicates that water levels in Coyote Creek are higher than groundwater. This suggests that Coyote Creek is recharging the groundwater at least during a portion of the year. Based on limited data it does not appear that Story Road Landfill is significantly polluting Coyote Creek.
7. Requirements of this Order This Order requires monitoring, investigation and remediation and closure of the Story Road Landfill as follows:

MONITORING

- A. The dischargers shall initiate quarterly monitoring. To date only three rounds of groundwater monitoring have been completed at the Story Road Landfill. This Order requires initiation of a quarterly monitoring program at the Story Road Landfill beginning with the fourth quarter 1992 [Provisions C.8 & C.9].
- B. The dischargers shall monitor the most vulnerable municipal well at the 12th Street Well Field on a quarterly basis. Currently the quarterly samples are collected on a rotating basis from a different municipal well each quarter. The most vulnerable municipal well to groundwater pollution shall be determined based on perforation depth, sanitary seal depth and location relative to the Story Road Landfill [Provision C.8].
- C. The dischargers shall monitor surface water in Coyote Creek both upstream and downstream of the Story Road Landfill on a quarterly basis [Provision C.8].

INVESTIGATION

- D. The dischargers shall conduct sufficient further investigation to define the horizontal and vertical extent of the groundwater pollutant plume [Task 2].
- E. The dischargers shall install additional wells between MW-2R and MW-3 and between MW-9R and MW-3 to monitor the water quality in the shallow aquifer zones immediately upgradient of San Jose Water Company's 12th Street Well Field. At a minimum, the first two aquifer zones must be monitored on a quarterly basis [Task 2].

REMEDIATION

- F. The dischargers shall submit a technical report to the Regional Board by December 31, 1992 containing a detailed interim remedial actions plan. The technical report must include a schedule designed to implement interim groundwater extraction by September 30, 1993 as required in the Regional Board staff letter of April 24, 1992 [Task 4].
- G. Startup of the groundwater extraction system could be accelerated if the polluted extracted groundwater was discharged to the sanitary sewer rather than treated at the Story Road. The direct discharge could also provide a significant cost savings to the dischargers. The dischargers shall prepare a feasibility study on leachate/groundwater treatment technologies for the expected influent. This feasibility study shall also evaluate the direct discharge of polluted groundwater to the sanitary sewer [Provision 11].

CLOSURE

- H. The Story Road Landfill does not have a overall grading, cover or stormwater runoff plan. Based on the information collected in 1987 the soil cover thickness varies between 1.5 and 6 feet. The dischargers shall evaluate the existing grading, cover and stormwater conditions and recommend improvements [Task 9 & 10].
 - I. Methane and other landfill gases shall be adequately vented, removed from the landfill units, or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water due to migration through the vadose (unsaturated) zone [Task 11].
8. Beneficial Uses The beneficial uses of the groundwater in the vicinity of the Story Road Landfill include municipal supply, domestic supply, agricultural supply, and fresh water replenishment.

The existing and potential beneficial uses of Coyote Creek and South San Francisco Bay include:

- Contact and non-contact water recreation
 - Wildlife habitat
 - Preservation of rare and endangered species
 - Fresh water habitat
 - Fish spawning and migration
 - Industrial service supply
 - Navigation
 - Ocean commercial and sport fishing
 - Shell fishing
 - Estuarine habitat
9. The Board adopted a Water Quality Plan for the San Francisco Bay Basin (Basin Plan) on December 6, 1986. This Order implements the water quality objectives stated in that plan and its subsequent amendments.
 10. The Board has notified the dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge, and has provided them with an opportunity to submit their written views and recommendations.
 11. The Board in a public meeting heard and considered all comments pertaining to the discharge.
 12. This Order is categorically exempt from the provisions of the CEQA pursuant to section 15308 of the Resources Agency Guidelines.

IT IS HEREBY ORDERED pursuant to authority in Section 13263 of the California Water Code, and Section 25356.1 of the California Health and Safety Code, that the dischargers shall cleanup and abate the effects described in the above findings as follows:

A. WASTE CONTAINMENT SPECIFICATIONS

1. The disposal of waste shall not create a pollution or nuisance as defined in Section 13050 (1) and (m) of the California Water Code.
2. Wastes shall not be placed in or allowed to contact ponded water from any source whatsoever.
3. Wastes shall not be disposed of in any position where they can be carried from the disposal site and discharged into waters of the State or of the United States.
4. Leachate from wastes and ponded water containing leachate or in contact with

refuse shall not be discharged to waters of the State or of the United States.

5. The dischargers, or any future owner or operator of this site, shall not cause the following conditions to exist in waters of the State at any place outside the waste management facility:

- a. **Surface Waters**

Floating, suspended, or deposited macroscopic particulate matter or foam.

Bottom deposits or aquatic growth.

Adversely alter temperature, turbidity, or apparent color beyond natural background levels.

Visible, floating, suspended or deposited oil or other products of petroleum origin.

Toxic or other deleterious substances to be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

- b. **Groundwater**

The groundwater shall not be degraded as a result of the waste disposal operation.

6. The site shall be protected from any washout or erosion of wastes from inundation which could occur as a result of a 100 year 24 hour precipitation event, or as the result of flooding with a return frequency of 100 years.
7. Surface water shall not be allowed to pond on the Story Road Landfill.
8. The dischargers shall remove and relocate any wastes which are discharged after the date of adoption of this Order in violation of these requirements.

B. SITE CLOSURE REQUIREMENTS

1. The exterior surfaces of the Story Road Landfill shall be graded to promote lateral runoff of precipitation. The final cover for the Story Road Landfill will have a minimum slope of three percent plus an allowance for subsidence. The final cover shall be a minimum of 4 feet thick to include, 2 feet of structural base, 1 foot of a low permeability barrier, and 1 foot of vegetative soil.

2. This Board considers the dischargers to have continuing responsibility for correcting any problems which arise in the future as a result of this waste discharge and during the closure and postclosure maintenance period.
3. The dischargers shall provide a minimum of two surveyed permanent monuments near the Story Road Landfill from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period. These monuments shall be installed by a licensed land surveyor or registered civil engineer.

C. PROVISIONS

1. All reports pursuant to this Order shall be prepared under the supervision of a registered civil engineer, California registered geologist or certified engineering geologist.
2. The dischargers shall conduct monitoring and investigatory activities as needed to define the current local hydrogeologic conditions, and the lateral and vertical extent of soil and groundwater pollution. Should monitoring results show evidence of pollutant migration, additional characterization of pollutant extent may be required.
3. If the City of San Jose and Santa Clara Transfer Service, Inc. fail to comply with any of the requirements of this Order, within 60 days of the Executive Officer's determination and actual notice to the dischargers listed on Table 1 of Finding 2, as landowners, shall comply with the provisions of this Order. The landowners listed on Table 1 must provide reasonable access to their property to allow for installation and sampling of monitoring wells and other investigatory and remedial activities as required by this order.
4. The leachate collection and recovery system shall be designed and operated to function without clogging.
5. The dischargers shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any Discharge Monitoring Program issued by the Executive Officer.
6. The dischargers shall maintain all devices or designed features, installed in accordance with this Order such that they continue to operate as intended without interruption.
7. The Regional Board shall be notified immediately of any slope failure occurring at the Story Road Landfill. Any failure which threatens the integrity of containment features or the Story Road Landfill shall be promptly corrected after approval of the method and schedule by the Executive Officer.

8. The dischargers shall file with the Regional Board Discharge Monitoring Reports performed according to any **Discharge Monitoring Program** issued by the Executive Officer.
9. The dischargers shall submit quarterly technical reports summarizing the status of compliance with the Prohibitions, Specifications, and Provisions of this Order on a quarterly basis. These quarterly technical reports shall be submitted, according to the schedule below, commencing with the report for the fourth quarter 1992, due January 15, 1993. The quarterly technical reports are to be submitted as a part of the self-monitoring reports required in Attachment A, Section C.3. as follows:

QUARTER	First	Second	Third	Fourth
PERIOD	Jan.-March	April-June	July-Sept.	Oct.-Dec.
DUE DATE	April 15	July 15	October 15	January 15

The quarterly reports shall include;

- a. a summary of work completed since the previous quarterly report, and work projected to be completed by the time of the next quarterly report,
- b. water quality data for all existing and future A, B, and deeper zone monitoring and extraction wells as appropriate, including laboratory reports. See Table SMP-1 of Attachment A for list of monitoring wells and type of analysis,
- c. appropriately scaled and labeled maps showing the location of all monitoring wells, extraction wells, and existing structures,
- d. cross sections depicting subsurface geologic information and corresponding correlations based on boring data,
- e. updated water table and piezometric surface maps for all affected water bearing zones, and isoconcentration maps for key pollutants in all affected water bearing zones,
- f. a cumulative tabulation of all well construction data, groundwater levels and chemical analysis results for site monitoring wells specified in the sampling plan,
- g. identification of potential problems which will cause or threaten to cause noncompliance with this Order and what actions are being taken or planned to prevent these obstacles from resulting in noncompliance with this Order, and

- h. in the event of noncompliance with the Provisions and Specifications of this Order, the report shall include written justification for noncompliance and proposed actions to achieve compliance.
- 10. The dischargers shall submit to the Board, according to the schedule shown below, technical reports acceptable to the Executive Officer containing a Sampling and Analysis Plan and a Health and Safety Plan. The Sampling and Analysis Plan and a Health and Safety Plan format and contents shall consider CERCLA regulations and guidance documents.

Technical Report

Date Due

- a. Sampling and Analysis Plan
- b. Site Safety Plan

December 31, 1992
December 31, 1992

- 11. Any proposal for the discharge of extracted groundwater included in the technical report required in Tasks 4 and 13 must initially consider the feasibility of reclamation, reuse, or discharge to a publicly owned treatment works (POTW), as specified in Board Resolution No. 88-160. If it can be demonstrated that reclamation, reuse, or discharge to a POTW is technically and economically unfeasible, a proposal for discharge to surface water shall be considered. Such proposal for discharge shall include the above demonstration and a completed application for an NPDES permit.
- 12. Copies of all correspondence and reports pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order, shall be provided to the other dischargers and to the following agencies:
 - a. Santa Clara Valley Water District, Attention: Thomas Iwamura
 - b. City of San Jose, Environmental Enforcement Department
 - c. Integrated Waste Management Board
- 13. The dischargers shall file with this Board a report of any change in ownership of the site.
- 14. The dischargers shall immediately notify the Board of any flooding, equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste or leachate containment facilities or precipitation and drainage control structures.
- 15. The dischargers shall permit the Board or its authorized representative, upon presentation of credentials:
 - a. Immediate entry upon the premises on which wastes are located or in

which any required records are kept.

- b. Access to copy any records required to be kept under the terms and conditions of this Order.
 - c. Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Order or by any other California State Agency.
 - d. Sampling of any discharge or ground water governed by this Order.
16. These requirements do not authorize commission of any act causing injury to the property of another or of the public; do not convey any property rights; do not remove liability under federal, state or local laws; and do not authorize the discharge of wastes without appropriate permits from other agencies or organizations.
17. This Order is subject to Board review and updating, as necessary, to comply with changing State or Federal laws, regulations, policies, or guidelines; changes in the Board's Basin Plan; or changes in the discharge characteristics.

D. COMPLIANCE TIME SCHEDULE

Except as provided in the schedules given below, the dischargers shall comply with this order immediately upon adoption. The dischargers shall comply with the Waste Containment Specifications, Site Closure Requirements, and provisions specified below according to the following schedules:

Task 1: Santa Clara Transfer Service, Inc - Tank Information
Completion Date: November 13, 1992

Submit a technical report acceptable to the Executive Officer which contains all historical information regarding the tank excavation and groundwater monitoring as discussed in Finding 3. In addition, submit a workplan to determine the lateral and vertical extent of pollution associated with the former underground tanks at the site.

Task 2: Title Search
Completion Date: November 31, 1992

The City of San Jose shall submit a technical report acceptable to the Executive Officer that contains a list of all property owners and tenants located within 500 feet of the limit of fill (as shown in the SWAT report). The report shall include a map that shows the property boundaries for each parcel.

Task 3: Groundwater Characterization
Completion Date: December 31, 1992

In order to comply with Provision C.2 of this Order the dischargers shall submit a technical report that defines the extent of groundwater pollution as described in Findings 7.D & 7.E. This report shall include but not be limited to: updated water table and piezometric surface maps for all affected water bearing zones, and isoconcentration maps for key pollutants in all affected water bearing zones.

Task 4: Interim Remedial Actions
Completion Date: December 31, 1992

Submit a technical report acceptable to the Executive Officer which contains an evaluation of interim remedial alternatives, a recommended plan for interim remediation, and an implementation time schedule. This report shall evaluate alternative hydraulic control systems to contain and to initiate cleanup of polluted groundwater. If this proposal includes the extraction of groundwater, the proposal shall describe the treatment and discharge of such extracted groundwater. The technical report must include a schedule designed to implement interim groundwater extraction by September 30, 1993.

In addition, this report shall include photographic copies of air photos (at an enlarged scale of 1"=200') for the following time frames: (1) pre-1960, (2) 1961-1964, (3) 1965-1968, (4) 1970-1980, and (5) the most recent available. The report shall also include a list of the dates and scales of all available air photo coverage for the site.

Task 5: Completion of Interim Remedial Measures
Completion Date: October 15, 1993

Submit a technical report acceptable to the Executive Officer documenting completion of the necessary tasks identified in the technical report submitted for Task 3.

Task 6: Evaluation of Interim Remedial Measures
Completion Date: October 15, 1994

Submit a technical report acceptable to the Executive Officer which evaluates the effectiveness of the interim remedial measures. Such an evaluation shall include, but need not be limited to, an estimation of the flow capture zone of any extraction wells, establishment of any associated cones of depression by field measurements, and presentation of chemical monitoring data, if extraction wells are proposed. This report shall also evaluate and document the removal and/or cleanup of polluted soils, if such removal and/or cleanup is an element of the interim remedial measures.

Task 7: Modification to Interim Remedial Measures
Completion Date: October 15, 1994

Specific modifications to the system and an implementation time schedule shall be

proposed in the event that the interim remediation measures are demonstrated not to be effective in containing and removing the onsite pollutants.

Task 8: Completion of Modifications to Interim Remedial Measures Completion Date: February 1, 1995

Submit a technical report acceptable to the Executive Officer documenting completion of the necessary tasks identified in the technical report submitted for Task 7.

Task 9: Grading, Cover, and Stormwater Runoff Evaluation and Recommendations Completion Date: June 30, 1993

Submit a technical report acceptable to the Executive Officer which contains an evaluation of the existing grading, soil cover and stormwater runoff conditions. This report shall recommend improvements to the existing grading, cover and stormwater runoff conditions as needed.

Task 10A: Completion of Grading, Cover, and Stormwater Runoff Improvements - Parcel No. 1. Completion Date: November 15, 1993

Submit a technical report acceptable to the Executive Officer which documents completion of the recommended and approved grading, cover and stormwater runoff improvements for Parcel No. 1 as submitted for Task 9.

Task 10B: Completion of Grading, Cover, and Stormwater Runoff Improvements - Parcel Nos. 2 and 3. Completion Date: June 30, 1994

Submit a technical report acceptable to the Executive Officer which documents completion of the recommended and approved grading, cover and stormwater runoff improvements for Parcel Nos. 2 and 3 as submitted for Task 9.

Task 11: Landfill Gas Monitoring and Abatement Evaluation and Recommendations Completion Date: February 26, 1993

Submit a technical report acceptable to the Executive Officer which contains an evaluation of the existing gas monitoring system. This report should include the results of gas monitoring both at the Story Road Landfill and in any structures within 500 feet of the "limit of waste" as shown in the 1987 Solid Waste Assessment Test for the Story Road Landfill. This report shall recommend improvements to be made in the gas monitoring system and recommend gas abatement as needed.

The City of San Jose has stated that they do not have legal authority to monitor for gases inside private structures. Therefore, the Executive Officer will find it acceptable if the City San Jose: (1) makes a good faith effort to notify all of the owners and tenants of the

above structures regarding the need for gas monitoring, (2) offers to conduct monitoring in any residential dwelling within 500 feet of the landfill, and (3) compiles all gas monitoring data.

Task 12: Completion of Landfill Improvements of Landfill Gas Monitoring System and Documentation of Gas Abatement System Startup
Completion Date: July 1, 1993

Submit a technical report acceptable to the Executive Officer which documents completion of improvements of the gas monitoring system and startup of the gas abatement system as specific in the technical report submitted for Task 11 above.

Task 13: Proposed Final Cleanup Objectives and Actions
Completion Date: May 1, 1995

Submit a technical report acceptable to the Executive Officer containing the results of the remedial investigation; an evaluation of the installed interim remedial measures; a feasibility study evaluating alternative final remedial measures; the recommended measures necessary to achieve final cleanup objectives; and the tasks and time schedule necessary to implement the recommended final remedial measures. If this proposal includes the extraction of groundwater, the proposal shall describe the treatment and discharge of such extracted groundwater.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 21, 1992.



Steven R. Ritchie
Executive Officer

Attachments: Figure 1. Location Map
Figure 2. Site Map
Discharge Monitoring Program

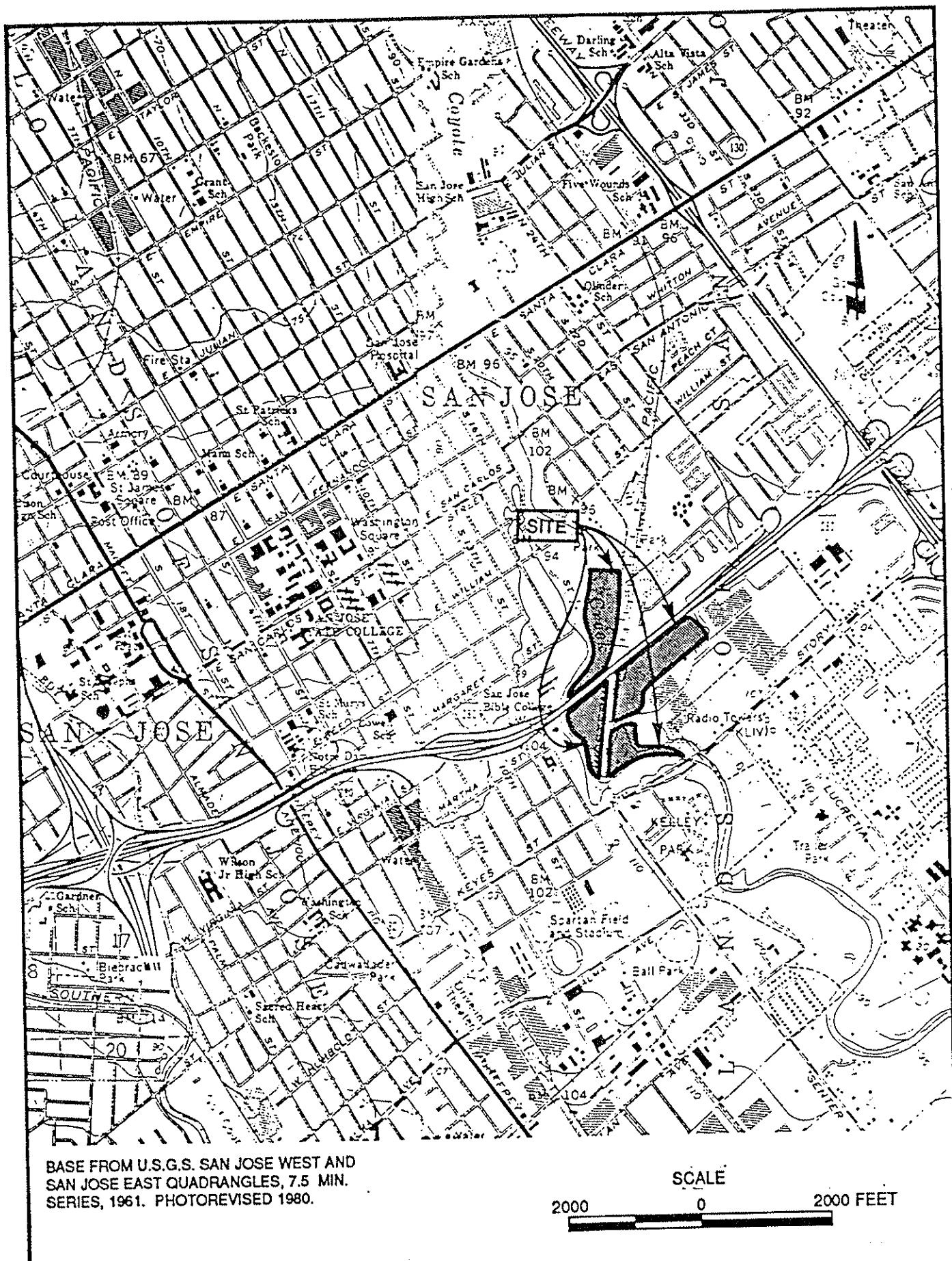


Figure 1. Location Map - Story Road Landfill, San Jose.

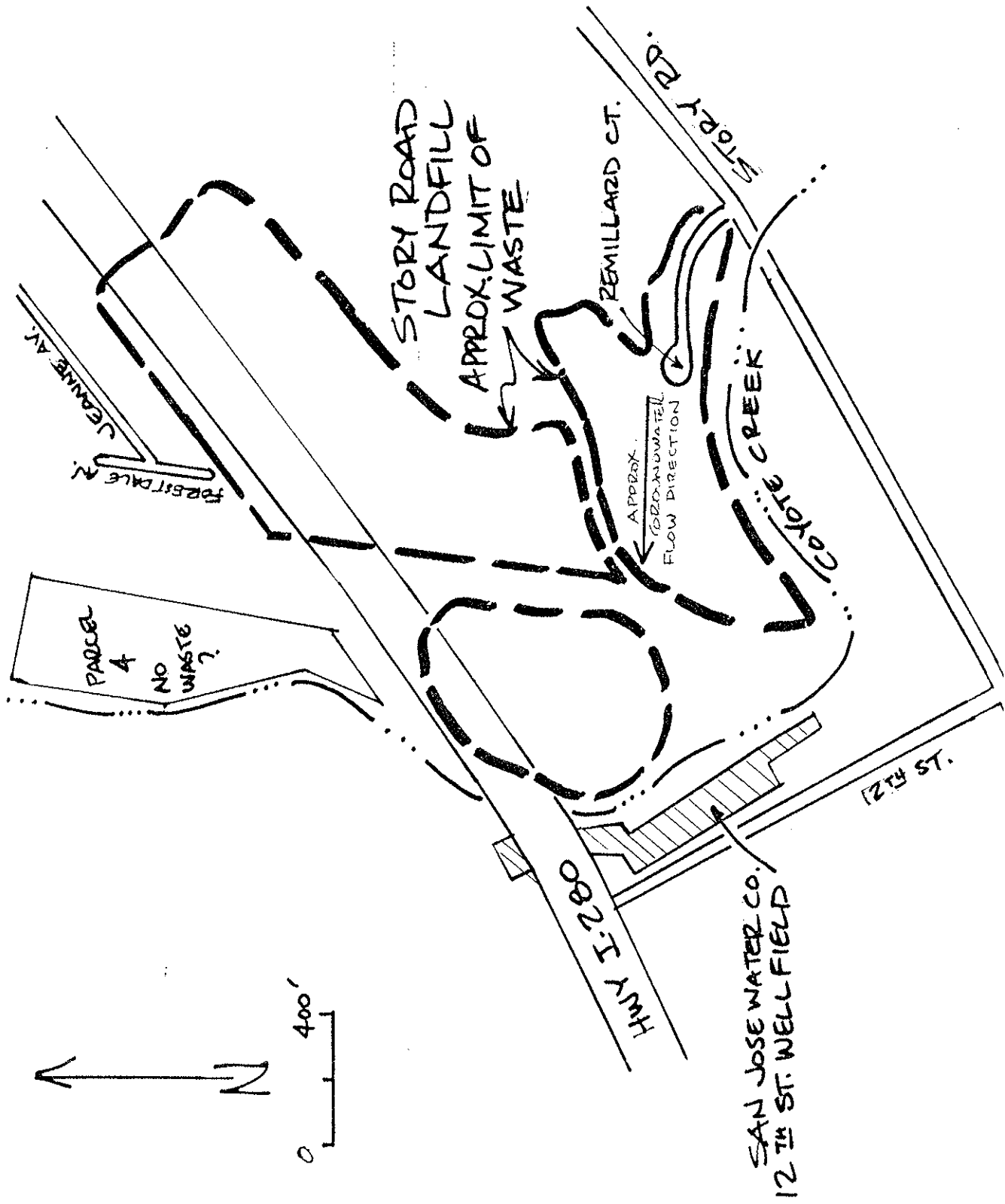


Figure 2. Site Map - Story Road Landfill, San Jose (modified from Story Road Landfill Solid Waste Assessment Test, 1987)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

DISCHARGE MONITORING PROGRAM

FOR

CITY OF SAN JOSE
SANTA CLARA TRANSFER SERVICE, INC.
CALIFORNIA DEPARTMENT OF TRANSPORTATION
RICHARD PETERS
SAHARA LUGGAGE INC.
DANNA PROPERTIES
RUSSELL E. JOHNSON, TRUSTEE

INACTIVE STORY ROAD LANDFILL
SAN JOSE, SANTA CLARA COUNTY

SANTA CLARA COUNTY

ORDER NO. 92-125

CONSISTS OF

PART A

AND

PART B

PART A

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No.73-16. This Discharge Monitoring Program is issued in accordance with Provisions 8 and 9. of Regional Board Order No. 92-125.

The principal purposes of a discharge monitoring program are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of standards of performance, and toxicity standards, (4) to assist the discharger in complying with the requirements of Article 5, Chapter 15 as revised July 1, 1991.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.
2. Receiving waters refers to any surface water which actually or potentially receives surface or groundwaters which pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the landfill areas, the surface runoff from the site, and Coyote Creek.
3. Standard observations refer to:
 - a. Receiving Waters
 - 1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
 - 2) Discoloration and turbidity: description of color, source, and size of affected area.
 - 3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.

- b. Perimeter of the waste management unit.
 - 1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
 - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
 - 3) Evidence of erosion and/or daylighted refuse.
- c. The waste management unit.
 - 1) Evidence of ponded water at any point on the waste management facility.
 - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
 - 3) Evidence of erosion and/or daylighted refuse.
 - 4) Standard Analysis (SA) and measurements are listed on Table A (attached)

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

The discharger is required to perform sampling, analyses, and observations in the following media:

- 1. Groundwater per Section 2550.7(b) and
- 2. Surface water per Section 2550.7(c)

and per the general requirements specified in Section 2550.7(e) of Article 5, Chapter 15.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

- 1. Identity of sample and sample station number.
- 2. Date and time of sampling.
- 3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.
- 4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
- 5. Calculation of results.

6. Results of analyses, and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE BOARD

1. Written detection monitoring reports shall be filed by the 15th day of the month following the report period. In addition an annual report shall be filed as indicated in F.3 below. The reports shall be comprised of the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:

- 1) A graphic description of the velocity and direction of groundwater flow under/around the waste management unit, based upon the past and present water level elevations and pertinent visual observations.
 - 2) The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water.
 - 3) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.
- c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

- d. Laboratory statements of results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.
- 1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer prior to use.
- 2) In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that is less than 80%; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.
- e. An evaluation of the effectiveness of the leachate monitoring or control facilities, which includes an evaluation of leachate buildup within the disposal units, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal methods utilized.
- f. A summary and certification of completion of all standard observations for the waste management unit, the perimeter of the waste management unit, and the receiving waters.

2. CONTINGENCY REPORTING

- a. A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Board within five days thereafter. This report shall contain the following information:
 - 1) a map showing the location(s) of discharge;
 - 2) approximate flow rate;
 - 3) nature of effects; i.e. all pertinent observations and analyses; and
 - 4) corrective measures underway or proposed.

3. REPORTING

By January 31 of each year the discharger shall submit an annual report to the Board covering the previous calendar year. This report shall contain:

- a. Tabular and graphical summaries of the monitoring data obtained during the previous year; the report should be accompanied by a 5¹/₄" computer data disk, MS-DOS ASCII format, tabulating the year's data.

- b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements.
- c. A map showing the area, if any, in which filling has been completed during the previous calendar year.
- d. A written summary of the groundwater analyses indicating any change in the quality of the groundwater.
- e. An evaluation of the effectiveness of the leachate monitoring/ control facilities, which includes an evaluation of leachate buildup within the disposal units, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal methods utilized.

4. WELL LOGS

A boring log and a monitoring well construction log shall be submitted for each sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 30 days after well installation.

Part B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. GROUND WATER and SURFACE WATER MONITORING - Report Quarterly

Groundwater and surface water shall be monitored as outlined below and on Table A (Attached).

Monitoring Points For Each Monitored Media

Media	Monitoring Point
Surface Water	SSP-1&2
Leachate	LW-1,2,3,4, and 5 (1)
Upper Water-Bearing Zone (2)	MW-1,2R,4,5,7,9R,10,11,12, 16, and 17 (3)
Lower Water-Bearing Zone (2)	MW-3,6R,8R, and 13
12th Street Well Field	Wells No.10&13

- (1) LW-3&4 have historically been dry
- (2) additional wells must be installed to define extent of pollution
- (3) sample MW-10 annually

Note: After the first four quarters of monitoring has been completed the dischargers may submit proposed reductions in the monitoring program for future second and fourth quarters. Any modification in the monitoring program must be approved in writing by the Executive Officer.

B. FACILITIES MONITORING

The Discharger shall inspect all facilities to ensure proper and safe operation once per quarter and report quarterly. The facilities to be monitored shall include, but not be limited to:

- a. Leachate Collection and Removal System
- b. Surface water impoundment
- c. Leachate handling facilities
- d. Perimeter diversion channels
- e. Leachate Management facilities and secondary containment.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

- 1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. 92-125.
- 2. Is effective on the date shown below.
- 3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.



Steven R. Ritchie
Executive Officer

Date Ordered: October 21, 1992

Attachment: Table A - Schedule for Sampling, Measurement, and Analysis

Table A - Discharge Monitoring Plan, List of Analytical Parameters

Parameters	Method	Reference	Frequency
Water level	Field	1	Quarterly
Temperature	Field	1	Quarterly
Chemical oxygen demand	410.2	2	Annually
Chloride	9252	3	Quarterly
Ammonia nitrogen	350.3	2	Annually
Nitrate nitrogen	9200	3	Annually
Total Kjeldahl nitrogen	351.4	2	Annually
Total organic carbon	415.1	2	Annually
Total phenols	9065	3	Annually (g)
Total dissolved solids	160.1	2	Quarterly
Electrical conductivity	9050	3	Quarterly
Total suspended solids	160.2	2	Annually
Turbidity	Field	1	Quarterly (c)
Settleable solids	160.5	2	Quarterly
Sulfate	9038	3	Quarterly (b)
Volatile organic compounds	8010/8020	3	Quarterly (d)
Volatile organic compounds	8240	3	Annually (d)
Semivolatile organic compounds	8270	3	Quarterly (h)
Total petroleum hydrocarbons	TPH-G	1	Quarterly
Total petroleum hydrocarbons	TPH-D	1	Quarterly
Arsenic	6010	3	Annually (f)
Cadmium	6010	3	Annually
Total Chromium	6010	3	Annually
Copper	6010	3	Annually
Mercury	6010	3	Annually (f)
Iron	6010	3	Annually
Lead	6010	3	Annually
Nickel	6010	3	Annually
Selenium	7740	3	Annually (f)
Silver	6010	3	Annually (f)
Zinc	6010	3	Annually
Dissolved oxygen	Field	1	Quarterly (c)
pH	9040	3	Quarterly
Pesticides/PCBs	8080	3	Annually
Total Phosphate	310.1	2	Annually
Orthophosphate	310.1	2	Annually
Biological Oxygen Demand	310.1	2	Annually
Calcium	6010	3	Quarterly
Magnesium	6010	3	Quarterly
Alkalinity	310.1	2	Quarterly
Sodium	6010	3	Quarterly
Potassium	6010	3	Quarterly
Fish bioassay (96 hour acute toxicity % survival)	NA (5)	4	Annually (e)

Table A - Discharge Monitoring Plan, List of Analytical Parameters

1. Not Applicable
2. Methods for Chemical Analysis of Water and Wastes,
EPA 600/4/79/029, revised March 1983.
3. EPA SW-846
4. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine
Organisms. EPA 600/4-85/013, April 1985, 3rd Edition
5. NA = not applicable
 - (a) monthly for first year, quarterly thereafter
 - (b) groundwater samples only
 - (c) surface water samples only
 - (d) Instead of method 8010/8020 for one quarter per year
 - (e) surface water location E-004 only
 - (f) perimeter wells and surface water only
 - (g) LW-1, MW-5, 6R, 9R 12, & 13 only
 - (h) MW-5 & LW-1 only